EBIO 202: Introductory Biology II

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Course Websites and Social Media
Owl-Space: https://owlspace-ccm.rice.edu/portal/site/EBIO-202-001-Sp15
Twitter: The course Twitter handle is **@EBIO202**. Use **#EBIO202** to pose questions and comments.

Overview
This is the second in a series of two introductory biology courses (BIOC 201, EBIO 202). In EBIO 202 you will study the variety of life that makes up this planet; you will learn about various species, their classification, functions, how they came into existence, and their interactions with each other and their environments. You will learn how evolution is central to a complete understanding of modern biology, and will be introduced to the science of ecology and its various sub-disciplines including population ecology, community ecology, and ecosystem ecology. You will learn how a comparative approach offers insight into human anatomy and physiology. We will also touch on conservation biology and restorative ecology. Group discussions will allow students to explore these topics in more detail and discover how they are relevant to our everyday lives.

Student Learning Objectives
By the end of this course, students will be expected to: (1) demonstrate a working knowledge of basic facts in the fields of ecology, evolutionary biology, biological diversity, and animal physiology; (2) demonstrate the ability to apply critical thinking and problem solving skills to evaluate published and proposed research in the biological sciences; and (3) demonstrate an understanding of the modern scientific method. Additionally, I hope that students will (1) identify and reconsider any pre-conceived notions they may have had regarding ecology and evolutionary biology, and (2) gain a new perspective on humans, our evolutionary origins, and our relationship to the natural world.

Required Course Materials
1) Campbell et al. (2013) *Biology* 10th ed., Pearson, San Francisco.
2) i>clicker remote

Class Meetings (MWF 9 – 9:50 am in Keck 100)
Most class meetings will involve a combination of lectures, videos, and interactive activities (e.g. involving the use of the i>clicker remote). Class meetings will build on assigned readings and in many cases will cover material that is not covered in the textbook. **Students are expected to come to lecture with a working understanding of the assigned reading material**. Unless told otherwise, students are responsible for all material covered in lecture.

Participation
Most lectures will include multiple choice questions that students will be expected to answer with the use of an i>clicker remote registered to their name. Although grades will not be based on which answer is selected, students who select an answer to at least 80% of all questions throughout the semester will earn full participation points for the course.

Quizzes
Quizzes will be available online on Owl-Space at 5 pm on the day prior to each lecture (with the exception of the first 3 lectures) and must be completed by 8 am on the day of the lecture. Quizzes will consist of 10 multiple choice questions (worth 1/2 point per question) that cover material presented in the preceding class plus knowledge gained by assigned reading material for the upcoming class. Once you have begun a quiz you will have 30 minutes to complete it. ***All quizzes are open-book, open-notes, closed-internet and no other aid except book/notes.***

Exams
There will be two midterm exams during the semester plus a 3-hour final exam. All exams are cumulative. Midterm exams will be taken online via Owl-Space during the designated exam time only (note that these are in the evening). ***Exams are closed-book, closed-notes, and closed-internet***. You may take the exam on any computer with internet access at a location of your choosing, but you may not receive any outside assistance (including from classmates or other students) while taking the exam. During exams, the instructor and TA will be available for questions via an online chat interface. No make-up exams will be offered except for university-sponsored activities that are beyond the control of the student (e.g. varsity sporting events).

Discussion Sessions
Students will be assigned to a discussion session that will meet during class time eight times over the course of the semester (see schedule below). Participation in all discussion sessions is required for a passing grade. Grades for discussion sessions are broken down as follows: Preparation Forms (30 points), Participation (28 points), Oral Summary (2 points), Write-up (12 points), Presentation (12 points); more details on how discussion sessions are graded will be given by your group leader during the first discussion session.

Evaluation
Quizzes: 28 quizzes x 5 points each = 140 points
Exams: 3 exams x 100 points each = 300 points
Discussion Sessions: (see breakdown above) = 84 points
Participation: 30 points (answer 80% of clicker questions throughout semester to earn full credit)
Pre-test: 6 points (based on completion only; answer all questions to receive full credit)
Total points possible = 560

The minimum point thresholds for each course letter grade are given below:

Letter Grade:	D–	D	D+	C–	C	C+	B–	B	B+	A–	A	A+
Minimum Points Needed:	334	350	378	390	406	434	446	462	490	502	518	546

Honor Code
All quizzes and exams will be administered online via Owl-Space. All quizzes are open-book, open-notes, closed-internet and no other aid except book/notes. Exams are closed-book, closed-notes, and closed-internet. Students are NOT allowed to work together on exams or quizzes. Any indication of a violation of this policy will result in an Honor Council investigation.

Disabilities
Any student with a disability requiring accommodations in this class is encouraged to speak with Dr. Solomon within the first two weeks of class and also contact the Director of Disabled Student Services in the Ley Student Center.

Course Schedule

Day	Date	Topic	Quiz #	Pgs in Campbell, 10th ed.
M	12-Jan	Course Intro; Why evolution matters		1-24
W	14-Jan	History of Evolutionary Thought		461-470
F	16-Jan	Evidence for evolution	Pre-Test	471-478
M	19-Jan	**MLK Day -- No Class**		
W	21-Jan	Mechanisms of evolution I: Microevolution	1	480-498
F	23-Jan	Mechanisms of evolution II: Macroevolution	2	500-516
M	26-Jan	Reconstructing evolutionary history	3	546-564
W	28-Jan	* In-Class Discussion Sessions 1 *		
F	30-Jan	The Origin and History of Life	4	519-543; 669-673
M	2-Feb	Microbial Diversity	5	562-564; 567-585
W	4-Feb	Protists	6	587-609
F	6-Feb	Plant Diversity	7	612-628; 630-646
M	9-Feb	Fungi	8	648-665
W	11-Feb	* In-Class Discussion Sessions 2 *		
Th	12-Feb	**EXAM 1 (lectures 1-11; Disc sessions 1-2)**		
F	13-Feb	Invertebrates	9	667-669; 673-704; 707-709
M	16-Feb	Insects	10	704-707
W	18-Feb	Vertebrates I	11	712-725
F	20-Feb	Vertebrates II	12	726-739
M	23-Feb	Primates and Human Evolution	13	740-748
W	25-Feb	* In-Class Discussion Sessions 3 *		
F	27-Feb	Feeding, nutrition, digestion, metabolism	14	866-912
M	2-Mar	**Spring Break - No Class**		
W	4-Mar	**Spring Break - No Class**		
F	6-Mar	**Spring Break - No Class**		
M	9-Mar	Circulation and Gas Exchange	15	915-943
W	11-Mar	Immune System	16	946-968
F	13-Mar	Osmoregulation and Excretion	17	971-990
M	16-Mar	Endocrine System	18	993-1010
W	18-Mar	* In-Class Discussion Sessions 4 *		
Th	19-Mar	**EXAM 2 (lectures 12-21; Disc sessions 3-4)**		
F	20-Mar	Reproduction	19	1013-1034
M	23-Mar	Nervous System	20	1061-1098
W	25-Mar	* In-Class Discussion Sessions 5 *		
F	27-Mar	Sensory Systems	21	541-542; 1101-1130
M	30-Mar	Animal Behavior	22	1133-1154
W	1-Apr	* In-Class Discussion Sessions 6 *		

F	3-Apr	**Spring Recess - No Class**		
M	6-Apr	Ecology and the Biosphere	23	1157-1181
W	8-Apr	* In-Class Discussion Sessions 7 *		
F	10-Apr	Population Ecology	24	1184-1205
M	13-Apr	Community Ecology I	25	1208-1215
W	15-Apr	Community Ecology II	26	1216-1229
F	17-Apr	Ecosystems	27	1232-1251
M	20-Apr	Conservation Biology and Global Change	28	1256-1277
W	22-Apr	* In-Class Discussion Sessions 8 *		
F	24-Apr	Wrap up and Review for final exam		

Final Exam: During scheduled final exam period (Apr 29 – May 6)